

Title (en)  
READER AND DISC DETERIORATION DETECTING METHOD

Title (de)  
LESEVORRICHTUNG UND DATENTRÄGER-VERSCHLECHTERUNGS-ERKENNUNGSVERFAHREN

Title (fr)  
LECTEUR ET PROCEDE DE DETECTION DE DETERIORATION DE DISQUE

Publication  
**EP 1736969 A4 20090204 (EN)**

Application  
**EP 05727487 A 20050330**

Priority  
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Abstract (en)  
[origin: EP1736969A1] For providing a read apparatus and a method of detecting deterioration of a disk, which can detect the deterioration of the disk securely at a low cost, when focus adjust and tracking adjust of an optical pick-up 3 can be acted normally within adjustable range by a servo DSP 5, the deterioration of the disk is detected based on a focus adjust value and a tracking adjust value.

IPC 8 full level  
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**G11B 7/00375** (2013.01 - EP US); **G11B 7/1263** (2013.01 - EP US); **G11B 20/1816** (2013.01 - EP US); **G11B 7/0945** (2013.01 - EP US);  
**G11B 2020/1869** (2013.01 - EP US)

Citation (search report)  
• [X] US 2003012105 A1 20030116 - MIYAZAKI ATSUSHI [JP], et al  
• [X] EP 1049081 A2 20001102 - SONY CORP [JP]  
• [X] WO 0106510 A1 20010125 - KONINKL PHILIPS ELECTRONICS NV [NL], et al  
• [X] US 2003076761 A1 20030424 - ABE MASAYOSHI [JP], et al  
• [PX] WO 2004047087 A1 20040603 - PIONEER CORP [JP], et al  
• [PX] WO 2004027405 A1 20040401 - MATSUSHITA ELECTRIC IND CO LTD [JP], et al & EP 1541996 A1 20050615 - MATSUSHITA ELECTRIC IND CO LTD [JP]  
• See also references of WO 2005096276A1

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WO 2005096276 A1 20051013

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